

Pneumatic Drywall Finishing Systems

The Problem

Finishing drywall by hand requires lots of effort and repetition. Your body is forced into awkward positions that can lead to serious wrist, shoulder, arm, and back injuries.

Working with bent wrists, and with your back bent or twisted, is common in hand finishing. You repeat certain difficult hand, arm, and back movements over and over. Some tools used in this work (such as flat and corner “mudboxes”) may also cause problems because you use a lot of strength to push on them.

The combination of pushing and working in an awkward position causes fatigue as well as tired and sore muscles. Eventually it can increase your chance of developing a muscle or joint injury.

Problem: Hand drywall finishing with mudbox



One Solution

Use a **pneumatic drywall finishing system**. You can avoid hand finishing, and you won't have to use flat and corner boxes. Although the work will still require some awkward positions and motions, you will not be exerting high forces at the same time or for as long a time. An air compressor gives enough pressure to force the drywall compound through the flat- and corner-finishing heads of the pneumatic system.

The pneumatic system requires much less physical effort than hand finishing, and it cuts down on the repeated wrist, arm, and

Solution: Pneumatic finishing system



and back movements. It also takes less effort to use than the automatic tools. You do not need to push with the same strong force used with boxes. You only have to guide the powered tool down the corner.

How It Works

An air compressor forces the drywall compound from the hopper into a tube. You do not need to hand pump the compound. Air forces the compound through the head of the tool when you pull the trigger. The heads give the same quality of finish that boxes do. The tool requires an airline from the hopper to the applicator. You also need electrical power for the air compressor.

Benefits for the Worker and Employer

These systems should reduce a worker's chance of developing muscle and joint injuries. In one study, most workers who tried the pneumatic system liked it better than the regular tools. Workers reported that their muscles were not as tired, and they did not have as much pain after using the pneumatic system.

There can also be an improvement in productivity. Workers in the study said the pneumatic system is faster than the older finishing boxes. Some workers said that it took a while to learn the new system. Although using the system was slow at first, it became faster within two months.

There are some drawbacks to the pneumatic system. The air and electrical lines may restrict your movement while you work.

The new system also takes longer to move, set up, and clean than hand finishing equipment. Therefore, it may not be as practical for small finishing jobs.

Approximate Cost

Pneumatic finishers start around \$3,500 and cost more depending on features.

For More Information

- Products related to this solution are described at www.cpwr.com/simple.html. Products also may be found on the internet using the following search terms: “drywall tool” + “pneumatic.”
- Local contractor tool and equipment suppliers or rental companies may be another source of information on products.
- For general information on this solution, check www.cpwrconstructionsolutions.org and www.elcosh.org.